FLOAT

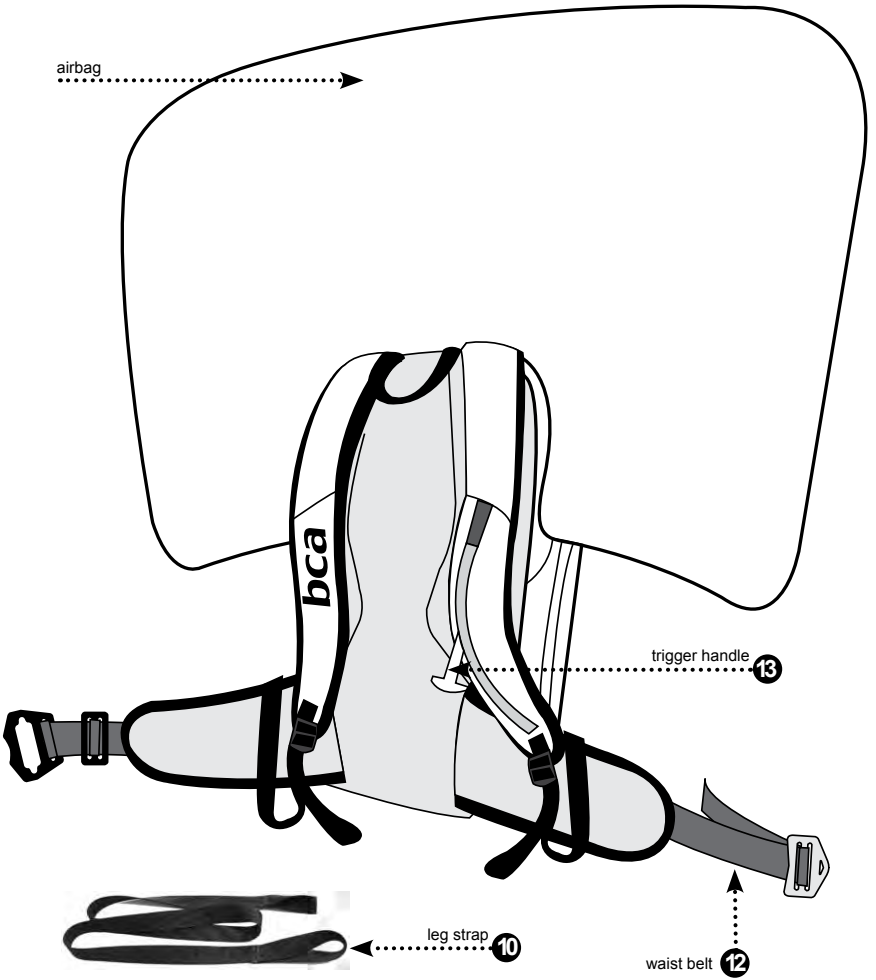
Owner's Manual

Bedienungsanleitung

Manuel D'Utilisation

Manuale Di Istruzioni

Float 22
Basic Components



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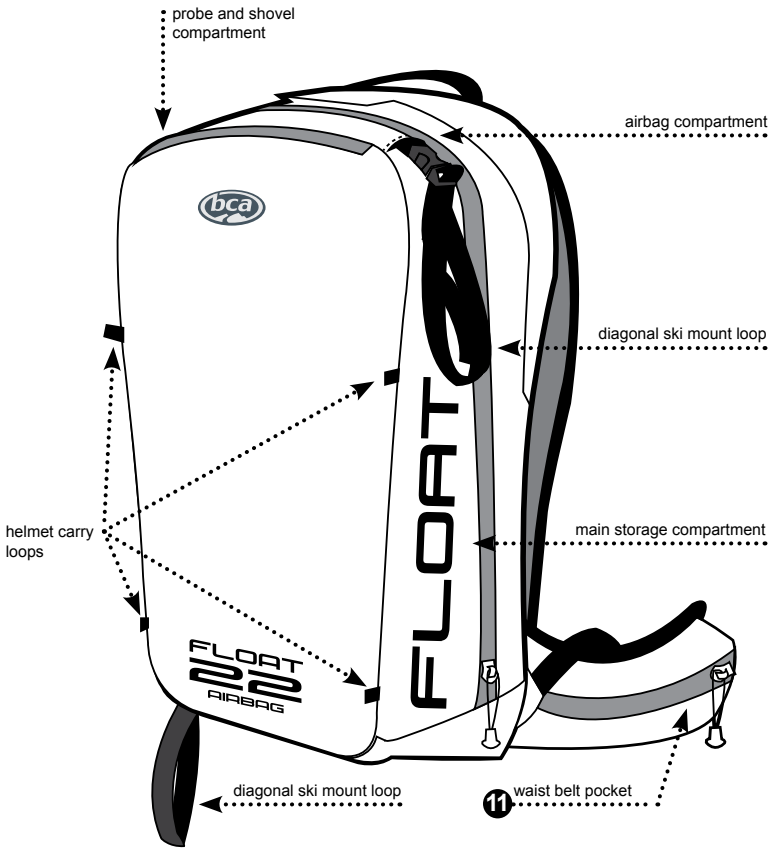
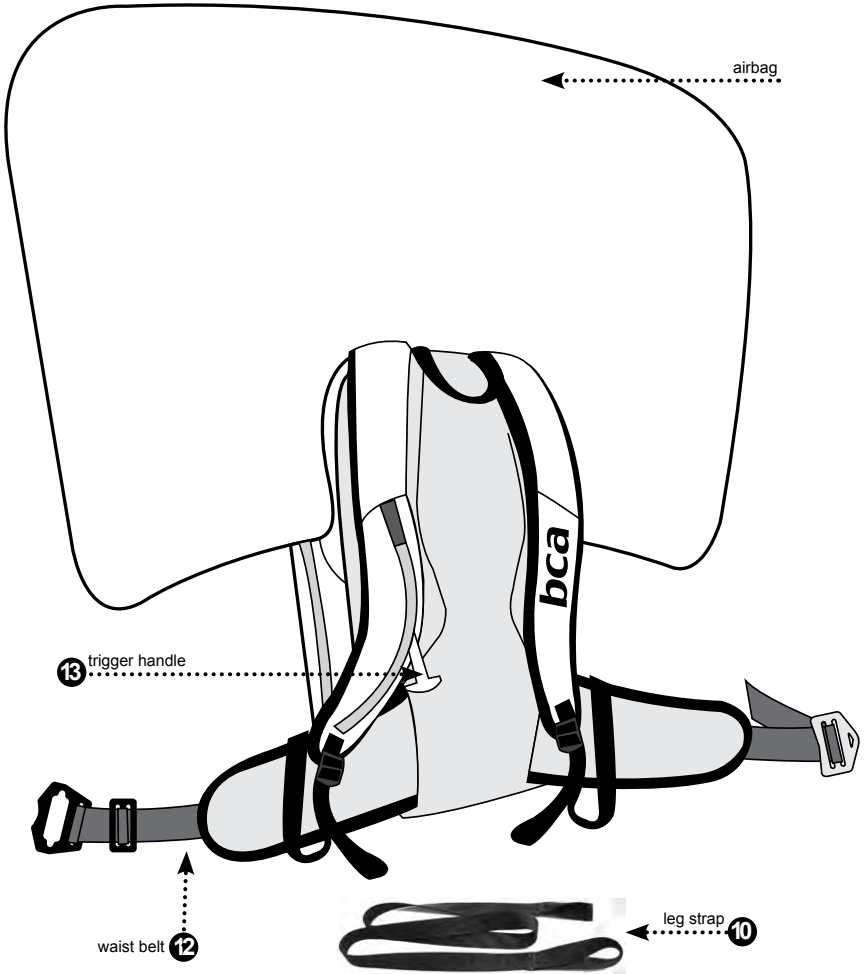
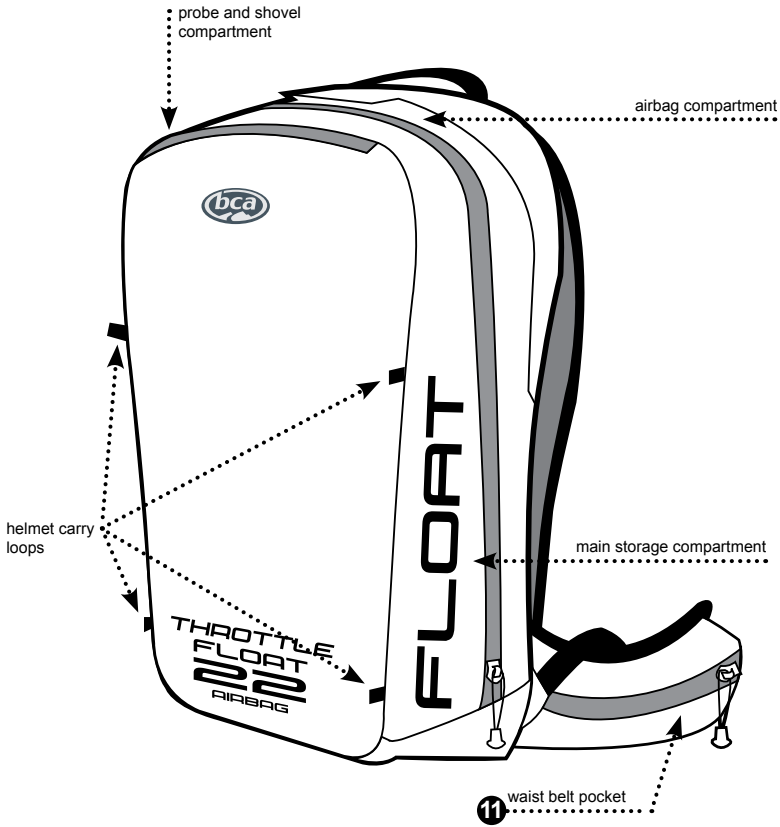


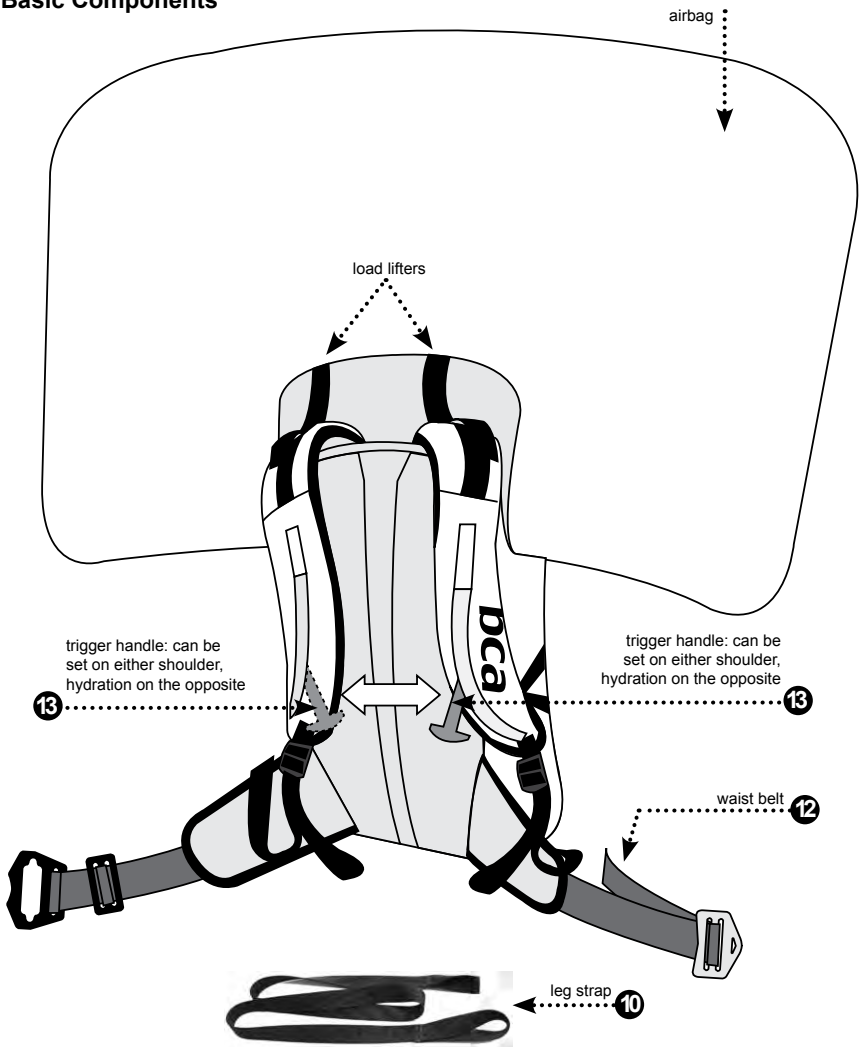
Float Throttle
Basic Components



Float Throttle
Basic Components



Float 32
Basic Components



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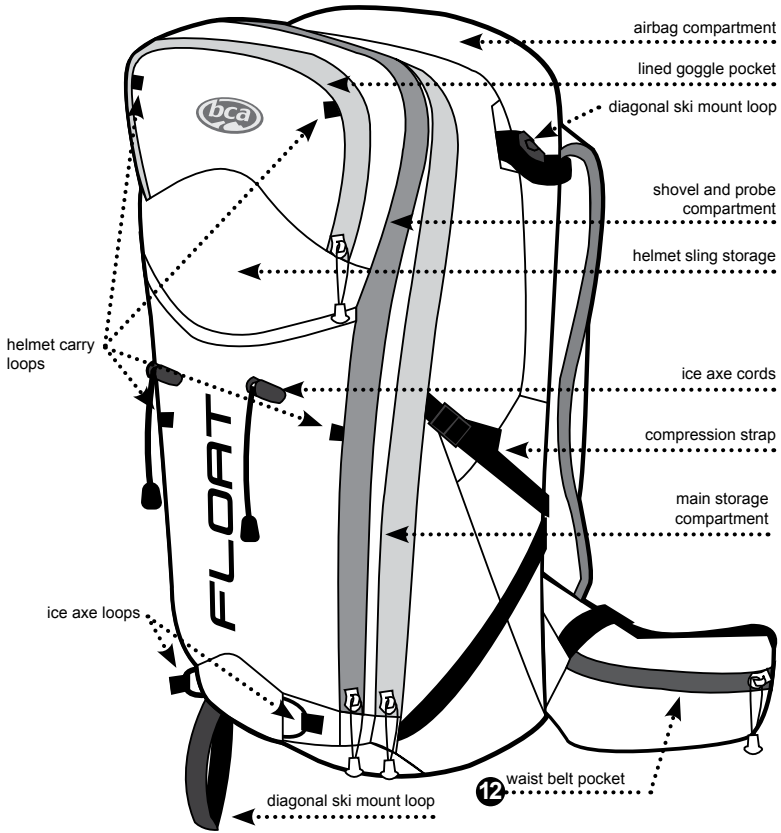


Theory of Operation / Disclaimer / Warranty

Why do I need an avalanche airbag?

Preventing or minimizing burial depth is the key to reducing avalanche fatalities. That's because the majority of time in an avalanche rescue is spent on excavating the victim. An airbag is designed to keep you at or near the surface, minimizing excavation time.

Disclaimer

The Float system is designed to help improve your chances of surviving an avalanche. It must be used correctly, following the guidelines in this manual. Perform a practice deployment at least once a year. Do not modify any aspect of this product or perform any operations not described in this manual.

Your Float cannot prevent the release of an avalanche or guarantee survival under any conditions. While it will provide some protection from impact, no airbag system can completely prevent injury from trauma. Any airbag must be used in conjunction with a beacon, shovel, probe, and helmet to provide the best chance of survival. As with other avalanche rescue tools, your airbag should not promote taking more risks.

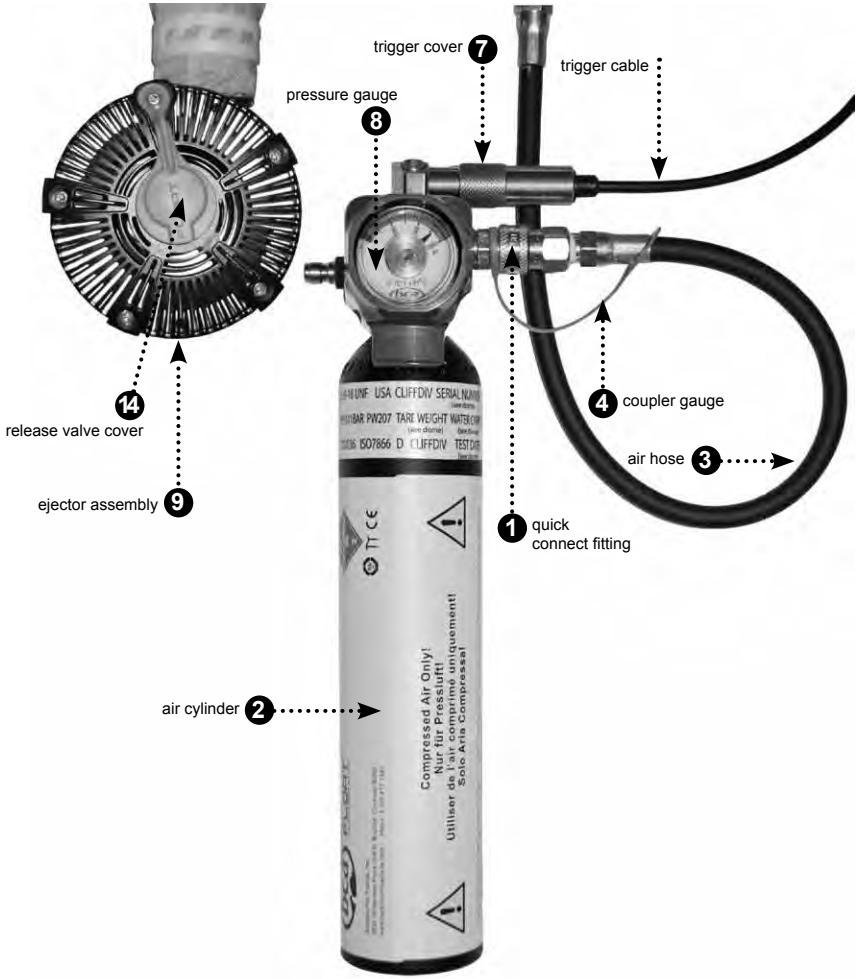
You have invested in lifesaving technology. Be sure you have also invested your time in acquiring the necessary skills to avoid avalanche situations before heading into the backcountry. Take an avalanche safety course, practice with your equipment, and plan your route according to the regional avalanche forecast.

Warranty

The manufacturer, Backcountry Access, Inc. (BCA), expressly warrants the workmanship and components of this product for three years after the date of retail purchase. All parts will be either repaired or replaced free of charge, including labor, by the manufacturer. This warranty does not cover damage to the product caused by improper use or excessive wear and tear. Direct all warranty claims to BCA or your retailer. All claims must include proof of purchase and a return authorization number.

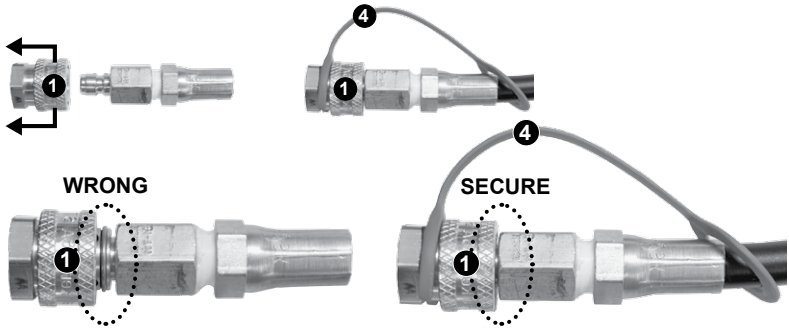
To ensure warranty protection and periodic technical updates please register online at: ***www.backcountryaccess.com/warranty .***

Equipment Check
Compressed Air System

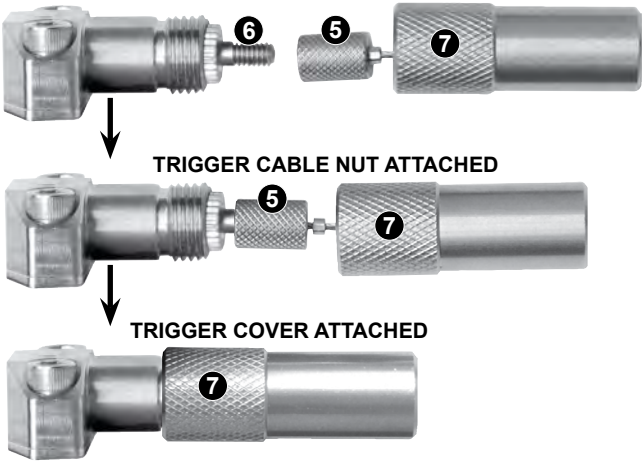


Installing Compressed Air Cylinder

1. Remove packaging caps from compressed air cylinder. To reach the trigger cable and air hose, unzip the main storage compartment and fold back the Velcro flap inside.
2. With the compressed air cylinder outside of the backpack's cylinder sleeve, connect the quick connect fitting on the air hose ❶ by pulling the large ring toward the air cylinder ❷. It should click back into place when air hose ❸ is properly connected. Coupler gauge ❹ should fit in place to ensure air hose is connected properly.



3. **IMPORTANT!** Screw the trigger cable nut ❺ onto the trigger pin ❻. To expose the trigger cable nut before threading it onto the trigger pin, it might be necessary to push the trigger handle upwards.
4. Screw the trigger cover ❼ over the trigger cable nut ❺.



5. After all connections have been checked, slide the compressed air cylinder into the backpack's cylinder sleeve.

6. Empty cylinders should only be refilled or exchanged at authorized Float refill or exchange centers. For a list of these locations, please see www.backcountryaccess.com/refillcenters. If shipping is required, see "Shipping a Compressed Air Cylinder" below.
7. To disconnect an empty cylinder, follow the above steps in reverse.

Equipment Check

System Fittings
Follow the previous "Installing Compressed Air Cylinder" steps to verify connections are correct. Every time you use your Float system, verify the trigger cable nut connection by unscrewing the trigger cover ❼ and making sure the trigger cable nut ❺ is attached securely to the trigger pin ❻. Replace trigger cover.

Air Cylinder
Check the pressure gauge ❽ on the compressed air cylinder and make sure it is between 2500 and 2700 psi (172 to 186 bar) at room temperature (approximately 70°F or 21°C). Pressure must be checked at room temperature for the reading to be accurate. Check pressure before every use. **PRESSURE MUST BE IN THIS RANGE OR THE SYSTEM MAY NOT FUNCTION PROPERLY.** Once the system is exposed to cold, the pressure will drop. If the pressure is ever observed below 2000 psi (138 bar), at any temperature, the airbag may not fill completely. See "Installing Compressed Air Cylinder" on page 10 for replacement details.Inspect the cylinder. Do not use a cylinder that is dented or damaged.

Pack
Make sure the Velcro flap on the top of the airbag compartment is securely fastened. This will ensure that the airbag is completely stored and secure.

Only the airbag and ejector are meant to be stored in the airbag compartment. Do not store any additional items in this compartment.

Check that nothing is loose inside the compressed air system or blocking the ejector assembly ❾. Make sure the compartment is zipped completely shut.

Using the Avalanche Airbag

Check to make sure that nothing is obstructing the airbag compartment on the outside of the pack, especially any items with sharp points such as crampons or ice tools. Only carry skis using the diagonal ski carry. Do not use the side compression straps for A-frame carry, as they may obstruct the airbag's deployment.

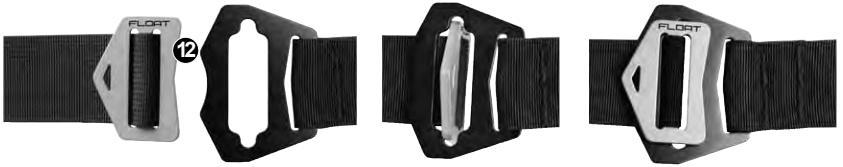
Pack Adjustments

Your pack should be properly fitted before you head into avalanche terrain. The forces of an avalanche can rip the pack from your back if it is not secured to your body.

Attaching Leg Strap

The leg strap ⑩ can be found in the waist belt pocket ⑪. It should be used to prevent the pack from being pulled off in an avalanche. Remove the leg strap from the waist belt pocket. Thread one of the waist buckle pieces ⑫ through one end of the leg strap. Wrap the other end of the leg strap behind you and pull it forward between your legs. Insert the same waist buckle piece through the loose end of the leg strap and fasten the waist buckle. Tighten the adjustment until it is snug but comfortable.

Waist Buckle



There are two parts to the buckle: male and female. Insert the male part into the widest opening of the female part. Tighten the waist strap until snug. When attached correctly, the webbing and the buckle should lay flat against your body.

Shovel and Probe Storage

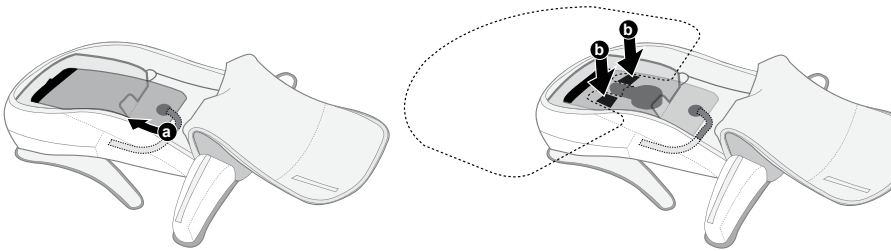
Store shovel blade, shovel handle and probe in designated pockets, located in the external tool compartment.

Ski/Snowboard Attachment

Float 22: Skis can be carried using the diagonal ski mounts. To carry a snowboard, order our BCA Snowboard Carry Attachment, which integrates with the snowboard attachment loops on the back panel.
Float Throttle: Does not offer the diagonal ski carry. However, it is possible to attach BCA's Snowboard Carry Attachment, which integrates with the snowboard attachment loops on the back panel.
Float 32: Skis can be carried using the diagonal ski mounts. To carry a snowboard, order our BCA Snowboard Carry Attachment, which integrates with the snowboard attachment loops on the back panel.

Hydration (reservoir not included)

Float 22 and Float Throttle: Not compatible with hydration system.
Float 32: Place reservoir in main compartment. Feed hydration tube through the corner opening (a) on the *opposite* side of where the trigger cable enters the main compartment. Open airbag compartment and unfold airbag. Route the hydration tube through the airbag compartment and into the shoulder strap opening (b) that does *not* contain the airbag trigger. Before repacking airbag, make sure the hydration tube is threaded *under* the airbag and ejector assembly to eliminate any obstruction during deployment.



Helmet Carrying

Float 22: The mesh helmet sling attaches to the four loops on the front of the pack.
Float Throttle: Helmet sling is not included, but pack contains helmet carry loops compatible with the helmet sling included with other models.
Float 32: Helmet sling is permanently fixed on the front of the pack and is integrated into the sling storage compartment under the BCA logo. Pull out the sling and attach clips to lower two loops, or upper two loops if using the diagonal ski carry option.

Deployment

When traveling in avalanche terrain, unzip the pocket where the trigger handle ⓭ is stored (see image on right). In case of an avalanche, pull the trigger handle quickly in a downward motion, reaching across your body with the hand opposite the trigger. Try skiing or riding to the flanks of the avalanche to escape the debris. When the avalanche slows down, preserve your airway by covering your mouth with your hand or elbow.

Using the Avalanche Airbag

What to Expect

The airbag should exit the backpack and fill completely in approximately three seconds. The airbag will continue to build pressure for a few seconds longer until the system pressure equalizes. The airbag will hold air for several minutes until the threat of an avalanche has passed.

After Deployment

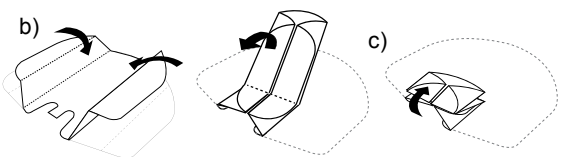
Release the air from the airbag by pressing the release valve with your finger. The valve is located underneath the orange release valve cover ⓮. Do not use hard or sharp objects to hold the release valve open, as they could damage the valve-sealing surface. Re-pack the airbag into the airbag compartment. See “Packing the Airbag” below for details.

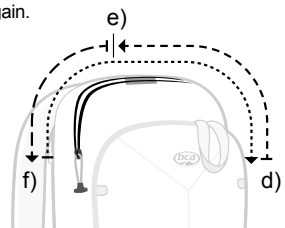
The Float airbag will not deploy again until the cylinder is refilled or replaced. This can be done at a Float Refill Center (see www.backcountryaccess.com/refillcenters). To install the charged cylinder, see “Installing Compressed Air Cylinder” on page 10. If you have deployed your airbag in an avalanche, please contact BCA for a free airbag inspection and cylinder refill.

Packing the Airbag

The airbag must be folded into the airbag compartment. DO NOT ROLL OR STUFF THE AIRBAG OR THE SYSTEM MAY NOT DEPLOY PROPERLY. If the airbag is wet, dry it completely before packing. Empty any residual air from the airbag using the release valve (you may need to do this periodically as you pack the bag). It is very important that all residual air has been released. After this air has been released, disconnect the air hose from the cylinder before folding the airbag.

1. Completely separate the zipper so the slider is only attached to one set of teeth.
2. Bring zipper slider back to the opposite side of pack where the zipper begins (a).
3. Begin by laying out the deflated airbag flat on the ground. Make one vertical accordion fold on each side of the airbag (b).
4. Next make two horizontal accordion folds on the airbag (c). After this step your airbag is ready to be zipped inside the airbag compartment.
5. With airbag folded inside the compartment, re-engage the zipper (d) and zip the compartment past the Velcro flap at the top of the compartment (e). Fasten Velcro and finish zipping the compartment closed (f).
6. Refill or exchange your empty cylinder before using your Float pack again.



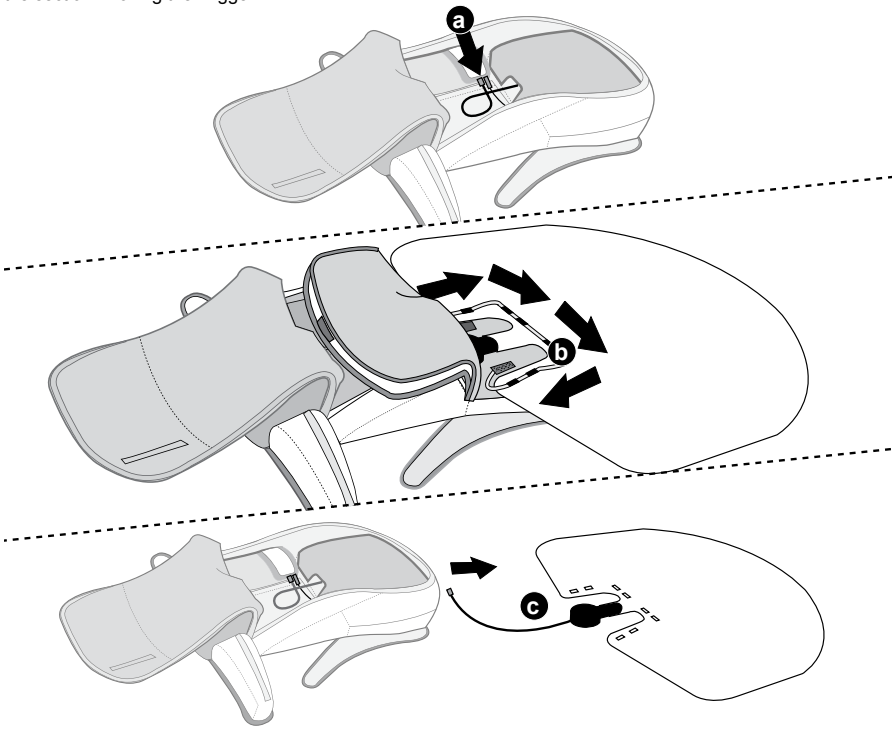


Removing and Installing the Airbag System

The 12/13 Float packs feature a removable and interchangeable airbag system. The airbag components can be swapped between the Float 32 and Float 22/Float Throttle or removed entirely.

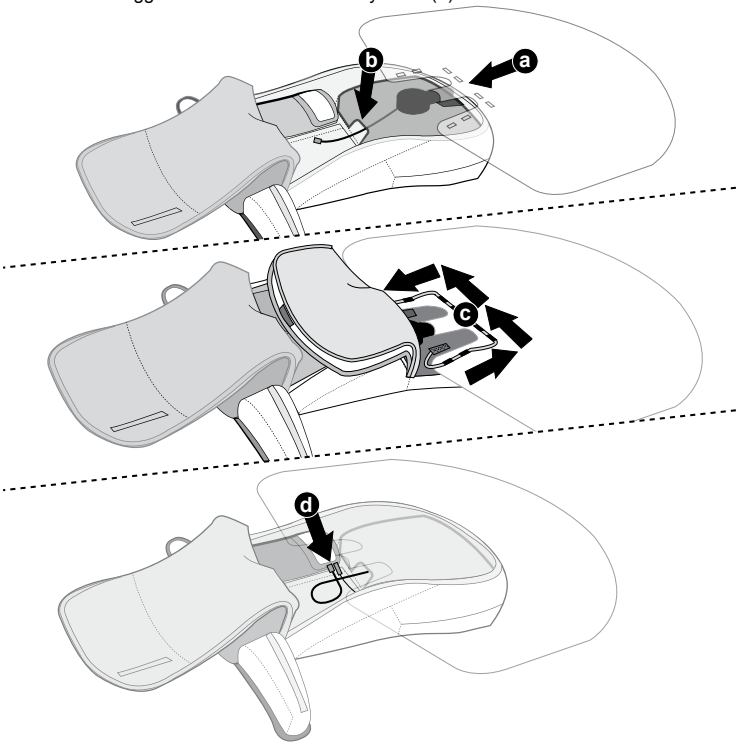
Removing

1. To remove the airbag, open the airbag compartment by pulling the breakaway zipper apart under the Velcro flap. Never try to “unzip” the airbag compartment zipper. Doing so could result in damage to the breakaway zipper.
2. Disconnect the trigger cable and air hose from the cylinder (a).
3. Unfasten the black Velcro holding the loose end of the orange rope in place. Un-thread the rope from the webbing loops (b).
4. Once the rope is no longer threaded through the webbing loops, the airbag, ejector, trigger cable and air hose are free to remove (c). The trigger cable stays with pack, but can be removed as noted later in the section “Moving the Trigger.”



Installing

1. With the airbag unfolded, lay the ejector in the airbag compartment with the orange release valve cover facing up (a). The air hose should be fed through the designated opening (b) into the main storage compartment where the cylinder is kept.
2. Starting on the side with the fixed end of the orange rope, thread the rope downward through the first slit in the airbag. Thread the rope through the first webbing loop then upward back through the first slit. Repeat this step with each slit (c) until you reach the ejector tube.
3. Once the threading is complete up to the ejector tube, pull the rope tight. This action will pull the webbing loops up through the attachment slits in the airbag.
4. Bring rope over ejector tube.
5. Repeat threading technique through remaining slits and webbing loops.
6. Secure the loose end of the orange rope by running it up through the black Velcro loop, then loop it back down and fold the Velcro flap over it.
7. Repack airbag and close compartment (see above instructions for repacking).
8. Reconnect trigger cable and air hose to cylinder (d).

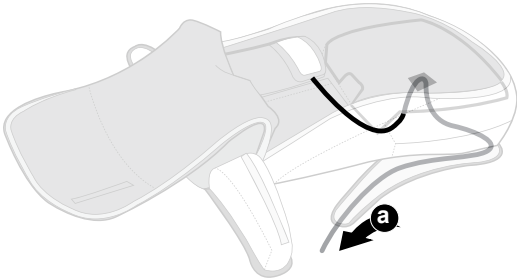


Moving the Trigger

The Float 32 allows you to install the trigger in the left or right shoulder strap, depending on your preference. This feature is not available in the Float 22 or Float Throttle.

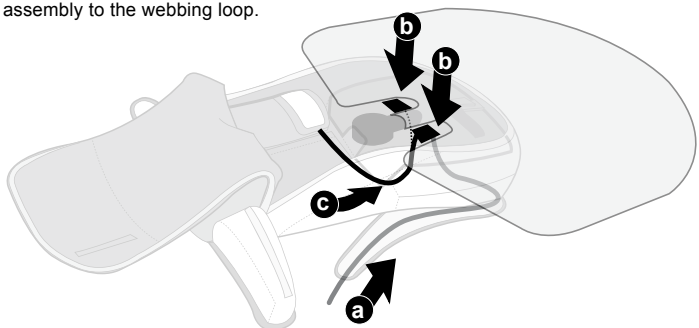
Removing

1. Open the zipper on the shoulder strap containing the trigger.
2. Untighten the small screw that attaches the trigger to the webbing loop inside the shoulder strap.
3. Pull the trigger and cable out (a) through the shoulder strap zipper.



Installing

1. Starting at the shoulder strap zipper (a), thread the trigger cable, leading with the trigger cover, back into the pack (b). Be sure the trigger cable is fed underneath the airbag components.
2. Feed trigger cable through the opening in bottom right corner of the airbag compartment (c) into the main storage pocket that stores the cylinder.
3. Inside the shoulder strap zipper, secure the trigger cable by fastening the screw on the trigger assembly to the webbing loop.



Maintenance / Storage / Transportation

No scheduled maintenance is required as long as the system is stored in a cool, dry place. Do not expose a charged Float cylinder to temperatures exceeding 130°F (55°C) or below -22°F (-30°C). If subjected to adverse conditions, check that all connections are free of contaminants. Pack can be cleaned with warm soapy water and connections can be cleaned with a damp cloth. Do not use lubricants.

Periodic Deployment

BCA recommends deploying your Float airbag at least once per year, both to make sure the system is operating correctly and to be sure the user knows how to operate the equipment efficiently. Put it on, pull the trigger, repack the airbag and refill the cylinder before the season starts. Your Float airbag is designed to undergo a minimum of 20 deployments and is warranted for three years. With proper care, it should last five years or more.

Discharging Compressed Air Cylinder

If the compressed air cylinder ❷ is pressurized but the pressure is below 2500 psi (172 bar) at 70°F (21°C), it should not be used in the backcountry, but it may be used for a practice deployment. Simply deploy the airbag by pulling on the trigger handle.

DO NOT POINT CYLINDER OUTLET PORT (COUPLER) AT ANYONE OR ANYTHING, AS IT COULD CAUSE DAMAGE OR INJURY. DISCHARGING A COMPRESSED AIR CYLINDER IS LOUD – PERSONAL EAR PROTECTION IS RECOMMENDED.

Shipping a Compressed Air Cylinder

DISCHARGE CYLINDER BEFORE SHIPPING.
Compressed air cylinders may not be shipped pressurized without proper (Hazmat) certification. Empty or full compressed air cylinders must be shipped in original packaging to prevent damage. Please return protective covers. When shipping unpressurized cylinders in their original packaging, please make sure you remove any Hazmat labels or markings that were used when they were shipped pressurized.

Transportation Guidelines

While the International Air Transport Association (IATA) has specifically approved avalanche airbags with pressurized cylinders for airline travel, the Transportation Security Administration (TSA) does not allow them on flights to and from North America. If you are traveling in countries outside of North America, contact your airline in advance for permission to check through your pressurized Float cylinder. If permission is granted, then pack the pressurized cylinder in your checked baggage. Make sure it is packed with the following document: www.backcountryaccess.com/IATAdoc .

If you are traveling to or from North America, then TSA will not allow your pressurized cylinder on board. Discharge the compressed air cylinder before entering the airport. Once empty, unscrew the cylinder head from the cylinder and put both in clean, re-sealable plastic bags. Carry them through the TSA security checkpoint so they are visible to TSA personnel. Afterward, the cylinder head can be screwed back on the cylinder by hand. When you reach your destination, locate a Float Refill Center and exchange or refill your empty cylinder. For a list of Float refill/exchange locations, visit our site at www.backcountryaccess.com/refillcenters .

Certifications and Markings

The following marks can be found on Backcountry Access Float avalanche airbags.

The CE mark of conformity indicates that Backcountry Access and this product meet the requirements of the Personal Protective Equipment Directive (89/686/EEC).

The Pi mark of conformity indicates that Backcountry Access and this product meet the requirements of ADR/RID and TPED (Directive 2010/35/EU).

Tested by TÜV SÜD: a globally recognized testing, inspection, and certification organization.
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Backcountry Access Float avalanche airbags are covered under U.S. patent: #7,878,141.

Float 22:

Pack volume: 22 l (1343 cu in)	Weight: 5.5 pounds (2495 g), entire system including cylinder

Float Throttle:

Pack volume: 22 l (1343 cu in)	Weight: 5.5 pounds (2495 g), entire system including cylinder

Float 32:

Pack volume: 32 l (1953 cu in)	Weight: 6.4 pounds (2903 g), entire system including cylinder

Airbag volume: 150 liters	Cylinder/cylinder head: Weight: 385 g/206 g Volume: 290 ml
System: Tensile strength >3000 N	Operating temperature range –30ºC to 55ºC (-22ºF to 130ºF)

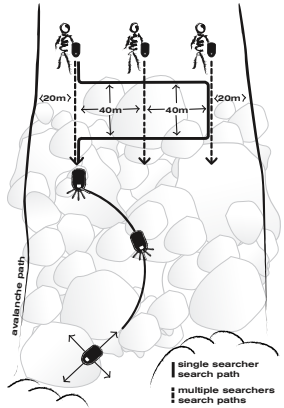
Avalanche Rescue

This is a basic introduction to avalanche rescue techniques. On our website, you will also find a list of avalanche instructors. We strongly suggest taking an avalanche course in your area before venturing into the backcountry. Each person needs a working beacon, probe and shovel—and must know how to use them. Before leaving, call your local avalanche forecast center and determine the danger level in the area you intend to visit:

US: www.avalanche.org **Canada: www.avalanche.ca** **Europe: www.lawinen.org**

Searching for victims

If a member of your group is buried, you must perform a beacon search. The objective is to find the strongest signal (lowest distance reading) and immediately begin probing the area. In the event of a burial, switch all avalanche beacons to search mode. The guidelines below assume the use of a digital beacon.

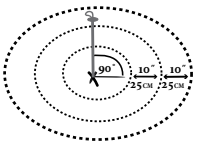


Signal search: If there is a "last seen point," start your signal search there. Otherwise, start your signal search at the top, bottom or side of the slide path. See diagram on right to establish a search pattern.

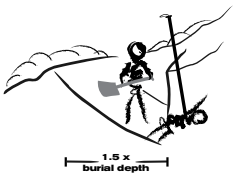
Coarse search: Once a signal is engaged, align your beacon so that any of the center three lights are flashing and move quickly in the direction it is pointing. Make sure the number in the distance display is decreasing. If it is increasing, turn 180 degrees. Inside ten meters, move slowly and try to keep the center search light engaged.

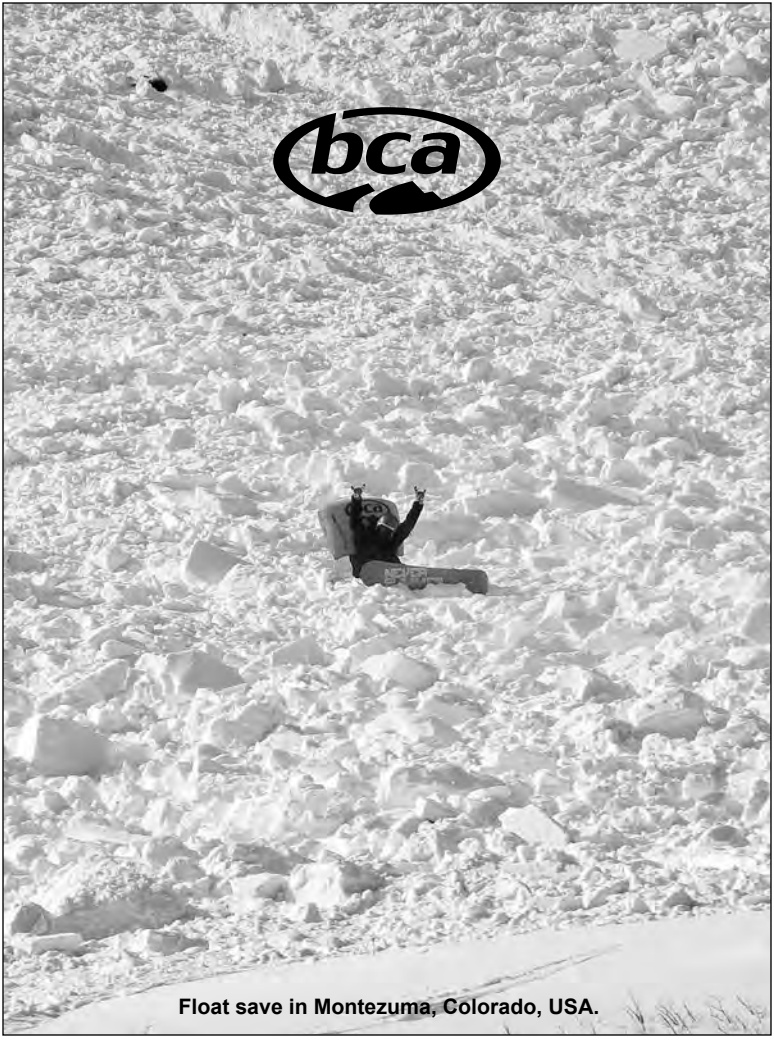
Fine search: Within three meters, use your beacon as close as possible to the snow surface and look for the smallest distance reading. Confirm by "bracketing" in the perpendicular direction.

Probing/Pinpointing: At the point where the distance has reached a minimum, probe the area in concentric circles, with each probe hole about 10 inches (25cm) apart. Your probe should enter the snow perpendicular to the slope. Once you have confirmed the victim's location, leave the probe in the snow.



Shoveling: While shoveling might seem elementary, it usually consumes the majority of time during an avalanche beacon rescue. For best results, start shoveling just downhill of the probe. Make your hole one "wingspan" wide. In burials deeper than one meter, excavate downhill about 1.5 times the burial depth. For more advanced shoveling techniques, see our website: www.backcountryaccess.com/shoveling .





Float save in Montezuma, Colorado, USA.

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